

available. The question must, therefore, be decided on a consideration of the circumstances of each case.*

*Note.—In some places it has been found possible to establish nurseries in the compounds of inspection and such other bungalows and to place the caretaker in charge. This has worked very well where the caretaker happened to be careful gardner. As water is always to be had the caretaker has plenty of leisure and the nursery can be inspected by officers using the bungalow. But everything depends on the skill of the caretaker.

Alterations in plans

8. It may occasionally be necessary to depart from the sanctioned plan. If the plan has been carefully framed, it will hardly ever be desirable to plant more than has been provided for : and to do so frequently leads to difficulty in maintaining the extra work, which has not been provided for in the plan for future years. But a very unfavourable season may prevent planting from being carried out. Should this happen, or should there be an accidental omission, the plan should be revised so as to provide for a little more planting in the next year, care being taken that money is available for its maintenance. All revisions of plans should be submitted to the Conservator for approval. Similarly, if the District Board finds that it is in a position to increase the annual grant available for arboriculture, a revised plan should be submitted for approval.

Map of avenues

9. To facilitate the preparation of plans and the supervision of operations, an outline map of the district should be maintained showing all the roads and the established avenues. New lengths of avenue should not be shown as such on the map till they are established (paragraph 2). A simple plan is to show the avenues when planted in dotted lines on each side of the road, with the date of planting, and to convert the dotted line into a full line as each length of avenue becomes established.

CHAPTER IV

TOOLS REQUIRED FOR ARBORICULTURAL WORKS

1. Various English implements are generally recommended in English books on gardening in India. But in tree-growing

most of the work is often done by ordinary untrained coolies, who will use nothing but the tools they are accustomed to handle. And very often it will be found that these tools are more suitable for the work to be done by the class of men available than English implements.

2. Of Indian tools which are admirably adapted to the purposes for which they are used may be mentioned, besides the usual and well-known agricultural instruments, the "vahaula" or "hoe axe", used for stubbling out roots, etc.; the "kurpa", or "ramba" of universal use by coolies in nearly all gardening operations; and the grass-cutters "daranti".

3. Hedge-pruning instruments of English make are, however, necessary. These are a hedger's bill or bill-hook, shears, and pruning knives.

4. In pruning and thinning the following instruments are required:—

Sharp knives

Indian saws (thick for greenwood), with long and short handles.

Pruning chisels, with long and short handles.

Wooden mallets.

Pruning knives are made with or without a hinge.

5. Pruning saws ought to have very fine teeth, and some ought to be provided with handles of various lengths, to reach branches at different heights. The Indian saw differs from the common saw in having the teeth pointed inwards, and is thus used by being drawn towards the operator. This saw is well fitted for removing branches at a distance from the pruner. For large branches saws about 18 inches long are well adapted.

6. The long-handled pruning chisels are used when the pruner cannot otherwise reach the branches, or finds it difficult to remove them with the saw. Some implements are shown in plate No. I.

CHAPTER V

COLLECTION AND PREPARATION OF SEED

1. Trees for planting avenues may be obtained from seed, cuttings, or root suckers. Other forms of propagation, such as